

METHOD OF CONTROLLING BODY TEMPERATURE WHILE REDUCING SHIVERING

Abstract Of The Disclosure

A method and apparatus for lowering the body temperature of a patient while reducing shivering by using a heat exchange device in combination with an $\alpha 2$ -adrenoreceptor agonist, a non-opioid analgesic monoamine uptake inhibitor or neuropeptide that temporarily reduces shivering. The devices disclosed include a catheter having a heat exchange balloon thereon with heat exchange fluid circulating through the interior of the balloon. The heat exchange balloon is placed in the vasculature of a patient, and heat exchange fluid at a temperature other than the temperature of the blood in the vasculature is circulated through the interior of the balloon to add or remove heat from the blood of the patient. Various $\alpha 2$ -adrenoreceptor agonists, $\alpha 2$ -adrenoreceptor agonists, non-opioid analgesic monoamine uptake inhibitors and neuropeptides are disclosed including dexmedetomidine, nefopam, neurotensin and anticonvulsant medications and pharmaceutically acceptable salts thereof. A control system for the control of the patient's temperature is disclosed for controlling the patient's temperature in conjunction with administering the $\alpha 2$ -adrenoreceptor agonist, non-opioid analgesic monoamine uptake inhibitor or neuropeptide.